

What does the phrase "cost of living" mean to you?

Expenses (Food, makeup, diapers, clothing, bills, transpo, ...)

What is a budget?

Limits on spending, set aside money for certain things
to assure you can continue to pay for your needs and other expenses

Household Budget Exploration Project

Income

Expenses: Fixed, Variable

Graphs (3): Income, Fixed Expenses, Variable Expenses

Spreadsheet: Excel or Google Docs Spreadsheet

By Thursday, 9/1/16:

List of income & expenses for your household

IWBAT

- discuss types of wages and how to convert between the types.

Cost of Living and Budget: Types of Wages

Wages - monetary compensation for working

Hourly wage - money paid per hour of work
($\$/\text{hr}$)

Salary - yearly income, usually paid monthly
($\$/\text{yr}$)

IWBAT discuss types of wages and how to convert between the types.

Cost of Living and Budget: Types of Wages

Overtime - increased rate of pay for hourly workers who work > 40 hr/wk or 8 hr/day
usually paid at $1.5 \times$ regular pay

Converting from an hourly wage to annual salary:

Johnny makes \$9 per hour for the first 40 hours he works each week. If he works eight hours per day, six days per week for three weeks per month, what is his annual pay?

$$\frac{3 \text{ wks}}{\text{mo}} \left(\frac{6 \text{ days}}{\text{wk}} \right) \left(\frac{8 \text{ hr}}{\text{day}} \right) = 144 \text{ hr/mo}$$

$$120 @ \$9$$

$$24 @ OT$$

$$\$1404/\text{mo} \times 12 \text{ mo/yr} = \$16,848$$

$$120 \text{ h} \times \$9/\text{hr} = \$1080$$

$$24 \text{ h} \times \$9 \times 1.5 = \$324$$

$$(13.50)$$

$$\$1404/\text{mo}$$

IWBAT discuss types of wages and how to convert between the types.

Cost of Living and Budget: Types of Wages

Converting from annual salary to an hourly wage:

Sonia has accepted a position which pays \$37,000 per year. If she averages 55 hours per week for 42 weeks per year, what is her effective hourly wage?

$$55 \times 42 = 2310 \frac{\text{hr}}{\text{yr}}$$

$$\frac{\$37000/\text{yr}}{2310 \frac{\text{hr}}{\text{yr}}} = \$16.01/\text{hr}$$

$$55 \frac{\text{hr}}{\text{wk}} \cdot 42 \frac{\text{wks}}{\text{yr}} = 2310 \frac{\text{hr}}{\text{yr}}$$

$$\frac{\$37000/\text{yr}}{2310 \frac{\text{hr}}{\text{yr}}} = \$16.01/\text{hr}$$

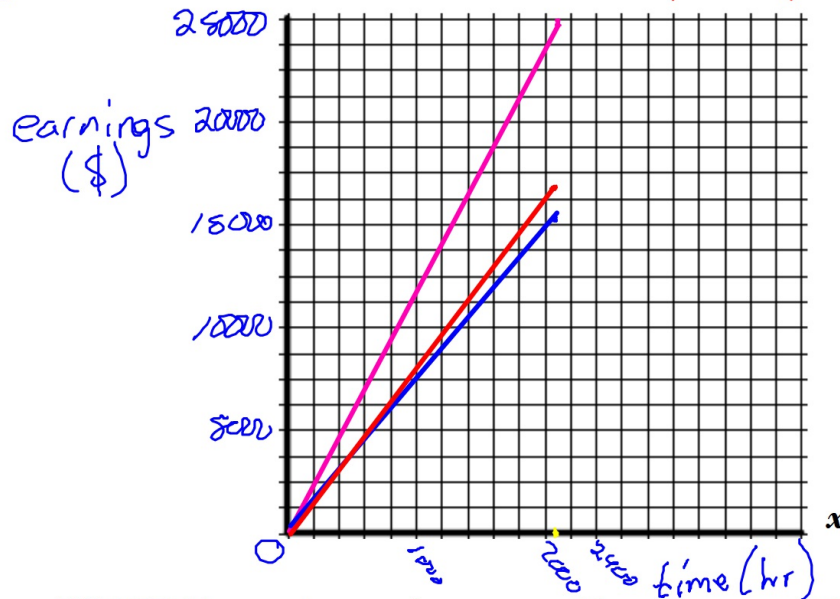
IWBAT discuss types of wages and how to convert between the types.

Cost of Living and Budget: Types of Wages

Jesus is paid \$7.35/hr. Sara is paid \$8/hr.

Shannon is paid \$12/hr. Plot their earnings over a year of 40 hr work weeks. 52 wks

$$y = 7.35x \quad y = 12x \quad y = 8x$$



$$\begin{array}{r} 52 \\ \times 40 \\ \hline 2080 \\ \times 12 \\ \hline \$24,960 \end{array}$$

$$\begin{array}{r} 2080 \\ \times 7.35 \\ \hline \$15,288 \end{array}$$

$$\begin{array}{r} 2080 \\ \times 8 \\ \hline \$16,640 \end{array}$$

IWBAT discuss types of wages and how to convert between the types.

Cost of Living and Budget: Types of Wages

Complete Practice Problems 2.1.2

By Thursday, 9/1/16:

List of income & expenses for your household

IWBAT discuss types of wages and how to convert between the types.

Cost of Living and Budget: Compensation Packages 8/26/16

What is compensation? What forms can it take?

Reward or repayment for your work/efforts

money

better office

raise
promotion

time off (vacations or comp. time)

phone

product

gift cards

discounts

benefits (e.g. insurance)

car

Cost of Living and Budget: Compensation Packages 8/26/16

IWBAT

- discuss compensation packages,
- what may be included in one,
- how to calculate the value of a compensation package.

Cost of Living and Budget: Compensation Packages

Total Compensation

wages + other benefits

Cost of Living and Budget: Compensation Packages

Insurance

- Auto
- ✓ Life
- Homeowner
- ✓ Dental
- ✓ Medical/Health
- ✓ Vision

Renter's

Worker's Compensation

Malpractice

IWBAT discuss compensation packages, what may be included in one, and how to calculate the value of a compensation package.

Cost of Living and Budget: Compensation Packages

Vacation/PTO

Mat LV

Sick days

Holidays

Personal days

paid vacation

IWBAT discuss compensation packages, what may be included in one, and how to calculate the value of a compensation package.

Cost of Living and Budget: Compensation Packages

Retirement

future planning for after you are
done working (usu. 30yrs or after age 65)

pension

IRAs

401K/403B

Employer contribution how much your employer
pays towards your retirement

Matching contribution

match a % of the employee's contribution

Contribution limits

Maximum you are allowed to contribute
each yr

IWBAT discuss compensation packages, what may be included in one, and how to calculate the value of a compensation package.

Cost of Living and Budget: Compensation Packages

Total compensation

An architect's compensation package includes the total cost of a \$250-per-month health insurance plan, the total cost of a \$35-per-month life insurance plan, and a salary of \$55,000 per year. What is the yearly value of the compensation package?

$$\begin{array}{r} (\$35 + \$250) \cdot 12 \text{ mo/yr} = \$3,420/\text{yr} \text{ benefits} \\ + \$55,000/\text{yr} \text{ salary} \\ \hline \$58,420/\text{yr} \text{ Total income} \end{array}$$

IWBAT discuss compensation packages, what may be included in one, and how to calculate the value of a compensation package.

Cost of Living and Budget: Compensation Packages

What is the annual value of a 401(k) plan in which the employer agrees to match 2.5% up to \$15,000 if the employee contributes \$15,000?

$$\begin{array}{r} \$15,000 \\ + \quad 375 \\ \hline \$15,375 \end{array} \quad \begin{array}{l} 15,000(2.5\%) = 150 \cdot 2.5 = \$375 \\ 100\% \leftarrow 2\% \end{array}$$

What is the true hourly wage of a job that pays \$17 per hour and allows 10 hours of paid time off for every 200 hours worked?

$$\frac{\$17/\text{hr} (200\text{ hr} + 10\text{ hr})}{200\text{ hr}} = \$17.85$$

IWBAT discuss compensation packages, what may be included in one, and how to calculate the value of a compensation package.

Cost of Living and Budget: Compensation Packages

Convert hh:mm time into decimal time & reverse.

Example: 2:30 is 2h 30min which equals 2.5h

1:15 1.25 3.75h 3:45

2:20 2.33 6.17h 6:10

Convert decimals into percents and reverse.

0.36 36% 0.09 9%

1.24 124% 2.51 251%

IWBAT discuss compensation packages, what may be included in one, and how to calculate the value of a compensation package.

Cost of Living and Budget: Compensation Packages

A compensation package that includes vacation pay, retirement, and life insurance but allows all employees to choose which compensation they prefer. This is known as a *cafeteria plan*.

If an employer agrees to pay a portion of the college tuition of an employee, this is known as *educational reimbursement*.

IWBAT discuss compensation packages, what may be included in one, and how to calculate the value of a compensation package.

Cost of Living and Budget: Compensation Packages

Floyd's employer purchased a health insurance plan that costs \$825 per month. Floyd pays \$105 toward the plan each month. What is the annual value of the employer's contribution?

$$\begin{array}{r} \$825 \\ - 105 \\ \hline \end{array}$$
$$\$720/\text{mo} \times 12 \text{ mo}/\text{yr} = \$8640/\text{yr}$$

A corporate attorney has weekends off and has 30 paid vacation days per year, including holidays that fall on weekdays. If his salary is \$119,600 per year, what is his pay per workday?

$$\begin{array}{r} 52 \text{ wk} \times 2 \text{ d} = 104 \text{ weekends} \\ 30 \text{ PTO} \\ \hline 134 \end{array}$$
$$\begin{array}{r} 365 \\ - 134 \\ \hline 231 \text{ d} \end{array}$$
$$\$119600 / 231 \text{ d} = \$516$$

IWBAT discuss compensation packages, what may be included in one, and how to calculate the value of a compensation package.

Cost of Living and Budget: Compensation Packages

Last year, Rachel contributed \$105 each month toward her 401(k) account. If her employer matched 17% of her contributions, what was the total amount contributed to the 401(k) at the end of the year?

$$\begin{array}{r} \$105/\text{mo} \times 12 \text{ mo} = \$1260/\text{yr} \\ \times .17 \\ \hline \$214.20 \end{array}$$
$$\begin{array}{r} \$1260.00 \\ + 214.20 \\ \hline \$1474.20 \end{array}$$

IWBAT discuss compensation packages, what may be included in one, and how to calculate the value of a compensation package.

An assembly technician has weekends off and has 15 paid vacation days per year, including holidays that fall on weekdays. If her salary is \$63,700 per year, what is her pay per workday?

$$52 \text{ wk} \times 5 \text{ work d/wk} = 260 \text{ work d/yr}$$
$$\begin{array}{r} 260 \\ - 15 \\ \hline 245 \text{ work days} \end{array}$$

$$\begin{array}{r} \$63,700 \\ \hline 245 \text{ d} \end{array}$$

$$= \$260$$

IWBAT

- how to estimate hourly pay from piece rate
- model piece rates using scatter plots.

Cost of Living and Budget: Piece Rate

What is piece rate?

Rate of pay per piece of work

Cost of Living and Budget: Piece Rate

Cliff worked 9 hours yesterday, produced 28 units, and earned \$8.75 for each unit produced. Find Cliff's average hourly wage.

$$\begin{array}{r} \$8.75/u \\ \times 28 u \\ \hline \$245 \\ \hline 9h \end{array} = \$27.22/h$$

IWBAT how to estimate hourly pay from piece rate, and model piece rates using scatter plots.

Cost of Living and Budget: Piece Rate

A property inspector gets paid \$350 for each property inspected. If it takes him 8 hours on average to inspect a property and he spends 48 hours each week inspecting properties, what is his average hourly wage?

$$48 \text{ hr} \div 8 = 6$$

$$\frac{\$350}{6} = 58.33$$

$$58.33 \times 48 \text{ hr} = \$2,800$$

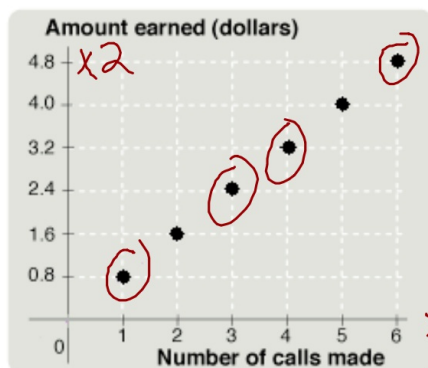
$$\frac{\$2,800}{48 \text{ hr}} = \$58.33 \text{ per hour}$$

$$\frac{\$350}{8 \text{ h}} = \$43.75/\text{h}$$

IWBAT how to estimate hourly pay from piece rate, and model piece rates using scatter plots.

Cost of Living and Budget: Piece Rate

A telemarketer earns a fixed amount for each call that he makes, as shown in the graph below. If the telemarketer makes 12 calls, how much will he earn in total?



$$4.8 \times 2 = 9.6$$

$$9.6 \times 12 = 115.2$$

$$0.8 \times 12 = 9.6$$

IWBAT how to estimate hourly pay from piece rate, and model piece rates using scatter plots.

Cost of Living and Budget: Piece Rate

Practice: 2.3.2

IWBAT how to estimate hourly pay from piece rate, and model piece rates using scatter plots.

Cost of Living: Linear Equations and Wages

8/31/16

What is a linear equation? What is the difference between a continuous graph and a discrete graph?

$y = mx + b$ describes a constant rate of change



Discrete
piece rate



continuous
hourly wage

IWBAT

- model a salary that includes a starting bonus
- understand the y-intercept in a linear equation
- use piece-wise functions to model changes in salary
- explore the graphing function of a graphing calculator.

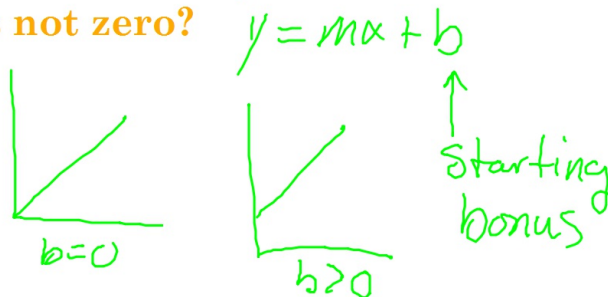
Cost of Living: Linear Equations and Wages

Review the general equation of a line and relate it to hourly wages.

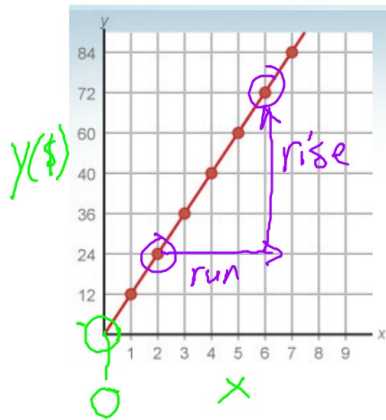
$$y = mx + b = 0$$

↑
slope
rate of pay

What is the equation of a line whose y-intercept is not zero?



Cost of Living: Linear Equations and Wages



x	y
1	\$12
2	\$24
3	\$36
4	\$48
5	\$60

$$y = mx + b$$

$$b = 0$$

$$y = m(0) + b$$

$$0 = 0 + b$$

$$0 = b$$

$$12 = m(1) + 0$$

$$12 = m$$

$$\frac{72 - 24}{6 - 2} = \frac{48}{4} = 12$$

$$\frac{60 - 24}{5 - 2} = \frac{36}{3} = 12$$

$$m = \frac{y_2 - y_1}{x_2 - x_1} \quad \frac{\text{rise}}{\text{run}}$$

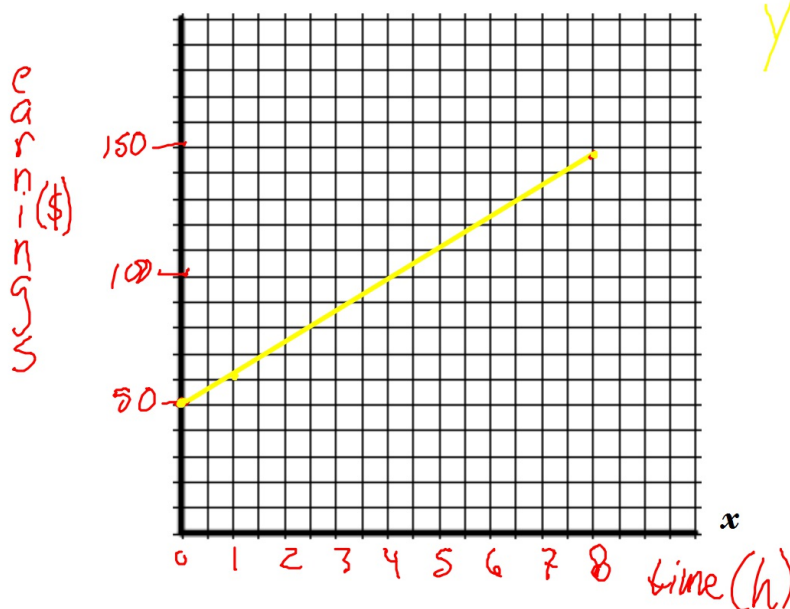
$$y = 12x (+ 0)$$

IWBAT model a salary that includes a starting bonus, understand the y-intercept in a linear equation, use piece-wise functions to model changes in salary, and explore the graphing function of a graphing calculator.

Cost of Living: Linear Equations and Wages

Suppose you are given a \$50 signing bonus at the boutique in addition to your \$12 an hour wage. You will now fill in a table for this situation, where x is the number of hours

y

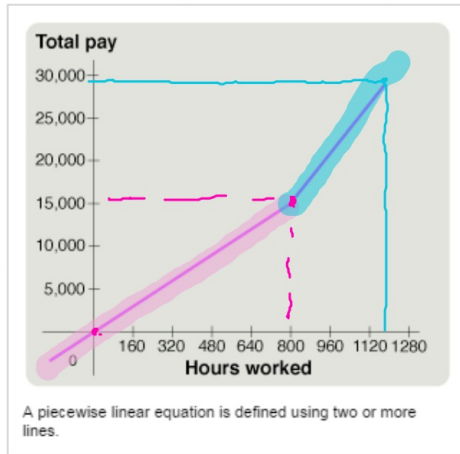


$$y = 12x + 50$$

\$/h starting bonus

IWBAT model a salary that includes a starting bonus, understand the y-intercept in a linear equation, use piece-wise functions to model changes in salary, and explore the graphing function of a graphing calculator.

Cost of Living: Linear Equations and Wages



Got a raise

piecewise equation

$$y = \begin{cases} \frac{75}{4}x, & x \leq 800 \\ \frac{1400}{37}x + 15000, & x > 800 \end{cases}$$

$$y = \frac{15000}{800}x = \frac{150}{8}x = \frac{75}{4}x$$

$$y = \frac{75}{4}x \quad x \leq 800$$

$$\frac{29000 - 15000}{1170 - 800} = \frac{14000}{370} = \frac{1400}{37}$$

$$y = \frac{1400}{37}x + 15000$$

$$x > 800$$

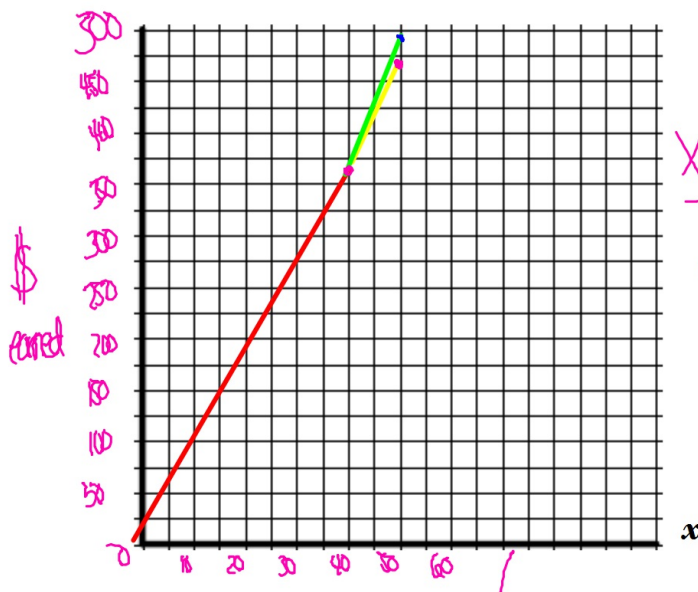
\$18.75 old

\$37.80 new

IWBAT model a salary that includes a starting bonus, understand the y-intercept in a linear equation, use piece-wise functions to model changes in salary, and explore the graphing function of a graphing calculator.

Cost of Living: Linear Equations and Wages

Johnny makes \$9 per hour for the first 40 hours he works each week and makes 1.5* regular for overtime. Graph his pay. Give the piecewise equations.



$$\begin{array}{r} 9 \\ \times 40 \\ \hline 360 \end{array}$$

$$\begin{array}{r} 9 \\ \times 1.5 \\ \hline 13.5 \\ \times 10 \\ \hline 135 \\ + 360 \\ \hline 495 \end{array}$$

$$y = mx + b$$

x = hours
y = \$ earned
b = 0

$$y = 9x + 0$$

b = 360

$$m = (9 \cdot 1.5)$$

$$y = 13.5(x - 40) + 360$$

IWBAT model a salary that includes a starting bonus, understand the y-intercept in a linear equation, use piece-wise functions to model changes in salary, and explore the graphing function of a graphing calculator.

Cost of Living: Linear Equations and Wages

$$y = 9x$$

$$y = 13.5(x - 40) + 360$$

$$y = \begin{cases} 9x, & 0 \leq x \leq 40 \\ 13.5(x - 40) + 360, & 40 < x \end{cases}$$

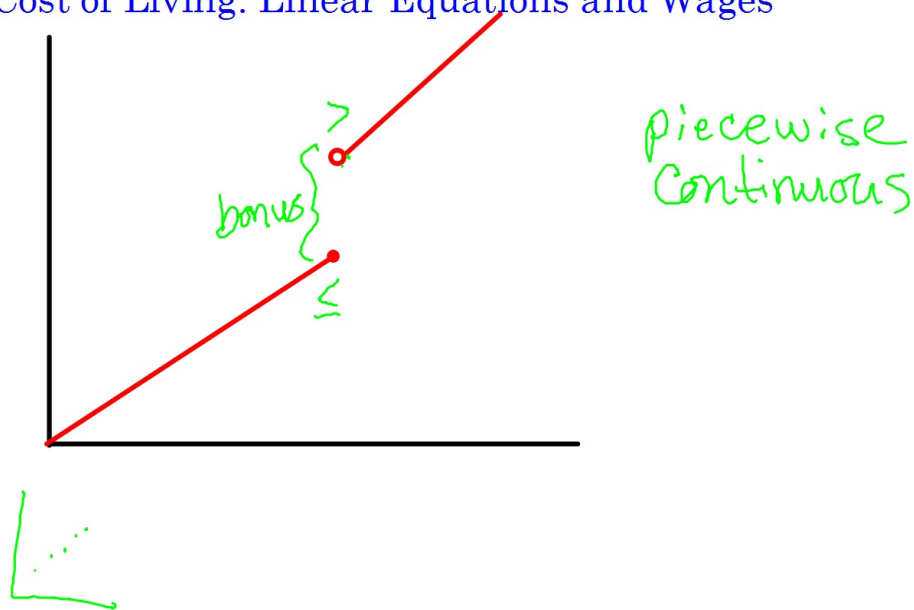
IWBAT model a salary that includes a starting bonus, understand the y-intercept in a linear equation, use piece-wise functions to model changes in salary, and explore the graphing function of a graphing calculator.

Cost of Living: Linear Equations and Wages

Practice: 2.4.2

IWBAT model a salary that includes a starting bonus, understand the y-intercept in a linear equation, use piece-wise functions to model changes in salary, and explore the graphing function of a graphing calculator.

Cost of Living: Linear Equations and Wages



IWBAT model a salary that includes a starting bonus, understand the y-intercept in a linear equation, use piece-wise functions to model changes in salary, and explore the graphing function of a graphing calculator.

Cost of Living: Percentages and Commission

9/01/16

What is ten percent of 23,638?

$$\begin{array}{r} 23638 \\ \times .10 \\ \hline 2363.80 \end{array}$$

$$\begin{array}{r} 23638, \\ 2363.8 \end{array}$$

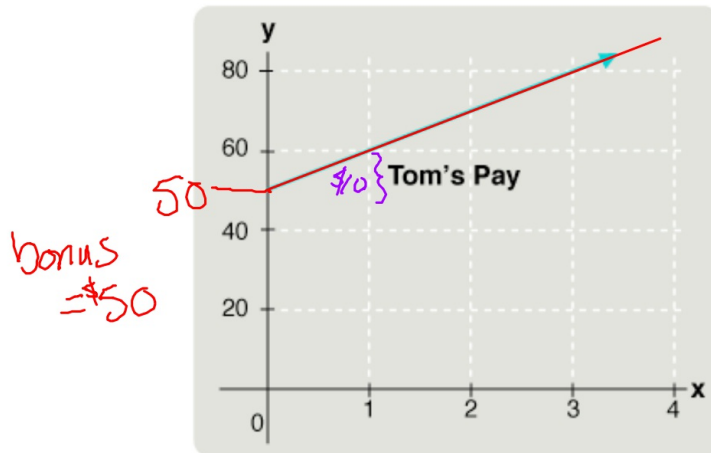
What is ten percent of 7,500 plus fifteen percent of 15,000?

$$\begin{array}{r} 750 \\ + 2250 \\ \hline 3000 \end{array}$$

$$\begin{array}{r} 7500 \\ \times .10 \\ \hline 750.0 \end{array}$$

$$\begin{array}{r} 15000 \\ \times .15 \\ \hline 2250 \end{array}$$

Given a graph, determine the employee's rate of pay and, if there was a bonus, the amount of that bonus.



Cost of Living: Percentages and Commission

IWBAT

- understand graduated commission and base pay
- use percentages to compute a total commission.

Cost of Living: Percentages and Commission

What does it mean to be paid a commission?

You are paid depending on your sales.

Push money money for selling a specific product

Cost of Living: Percentages and Commission

Straight Commission

Same percentage no matter how much you sell or the prices

Flat Commission (Piece Rate)

a set dollar amount per item

IWBAT understand graduated commission and base pay, and use percentages to compute a total commission.

Cost of Living: Percentages and Commission

Graduated Commission

\$50,000 sales

Amount Sold	Commission
Up to \$1000	10%
\$1000 - \$20,000	20%
Over \$20,000	25%

$$\begin{aligned}
 &10 \times 1000 = 100 \\
 &20 \times 19000 = 3800 \\
 &25 \times 30000 = 7500 + \\
 &\quad \underline{\hspace{1cm}} \\
 &\quad \quad \$11,400
 \end{aligned}$$

IWBAT understand graduated commission and base pay, and use percentages to compute a total commission.

Cost of Living: Percentages and Commission

Total Commission

Total commission = number of items sold *
commission rate * cost of item sold

$$\begin{aligned}
 &250 \text{ phones} \times 5\% \times \$60 = \$7500 \\
 &\quad \quad \quad \swarrow \quad \quad \quad \searrow \\
 &\quad \quad \quad 0.05 \quad \quad 60 \\
 &\quad \quad \quad \times \quad \quad \quad 30
 \end{aligned}$$

IWBAT understand graduated commission and base pay, and use percentages to compute a total commission.

Cost of Living: Percentages and Commission

Total Income

Total income = base pay + total commission

$$TI = \$1000 + \$2500 = \$3500$$

IWBAT understand graduated commission and base pay, and use percentages to compute a total commission.

Cost of Living: Percentages and Commission

Practice: 2.5.2

IWBAT understand graduated commission and base pay, and use percentages to compute a total commission.

Calculate the commission for an employee.

John is an appliance salesman. His pay is based on commission only and is currently 26% for each appliance sold. Last month he sold 3 dishwashers for \$499 each, 2 freezers for \$199 each, and 1 stainless steel oven for \$899. Find the total commissions John earned last month.

$$\begin{aligned} 499 \times 3 &= 1497 & 199 \times 2 &= 398 & 899 \\ 2794 \times .26 & & & & \\ & & & & \text{\$726.44} \end{aligned}$$

IWBAT

- Categorize budget expenditures/expenses

Cost of Living: Budget Odyssey

Guidelines for budget exploration activity & record of decisions w/ reasoning

IWBAT categorize budget expenditures/expenses

Cost of Living: Budget Odyssey

Working with a partner, you will:

1. Proceed to <http://econedlink.org/i145> .
2. Play the game Budget Odyssey online.
3. Discuss all decisions with your partner.
4. Record all of your decisions and reasoning on the graphic organizer (more copies available if needed).
5. Continue playing until you can complete the game without any incorrect decisions.
6. Turn in your graphic organizer at the end of class or the successful conclusion of the game (whichever comes first).
7. Work on previously assigned work which remains incomplete. **Now is a good time to set up your budget spreadsheet, if you have not already done so.**

IWBAT categorize budget expenditures/expenses

Cost of Living: Budget Odyssey

**Turn in your completed
record of expenditure
categorizations w/ reasoning.**

IWBAT categorize budget expenditures/expenses

Cost of Living: Required Paycheck Deductions 9/08/16

Categorize a set of budget expenditures/expenses

Student loan payment	Income
Savings account interest	Savings account interest
Mortgage payment	Paycheck
Renter's insurance	Birthday money
Purchase snow boots	
Groceries	Fixed expenses
Paycheck	Student loan payment
Tattoo	Mortgage payment
Diapers	Renter's insurance
Birthday money	
	Variable expenses
	Groceries
	Tattoo Purchase snow boots
	Birthday money
	Diapers

Cost of Living: Required Paycheck Deductions

Turn in practice problems 2.4.2 & 2.5.2 today.

Create and turn in tomorrow:

Lists of your fixed expenses and variable expenses and why you have placed your items into each list.

Cost of Living: Required Paycheck Deductions

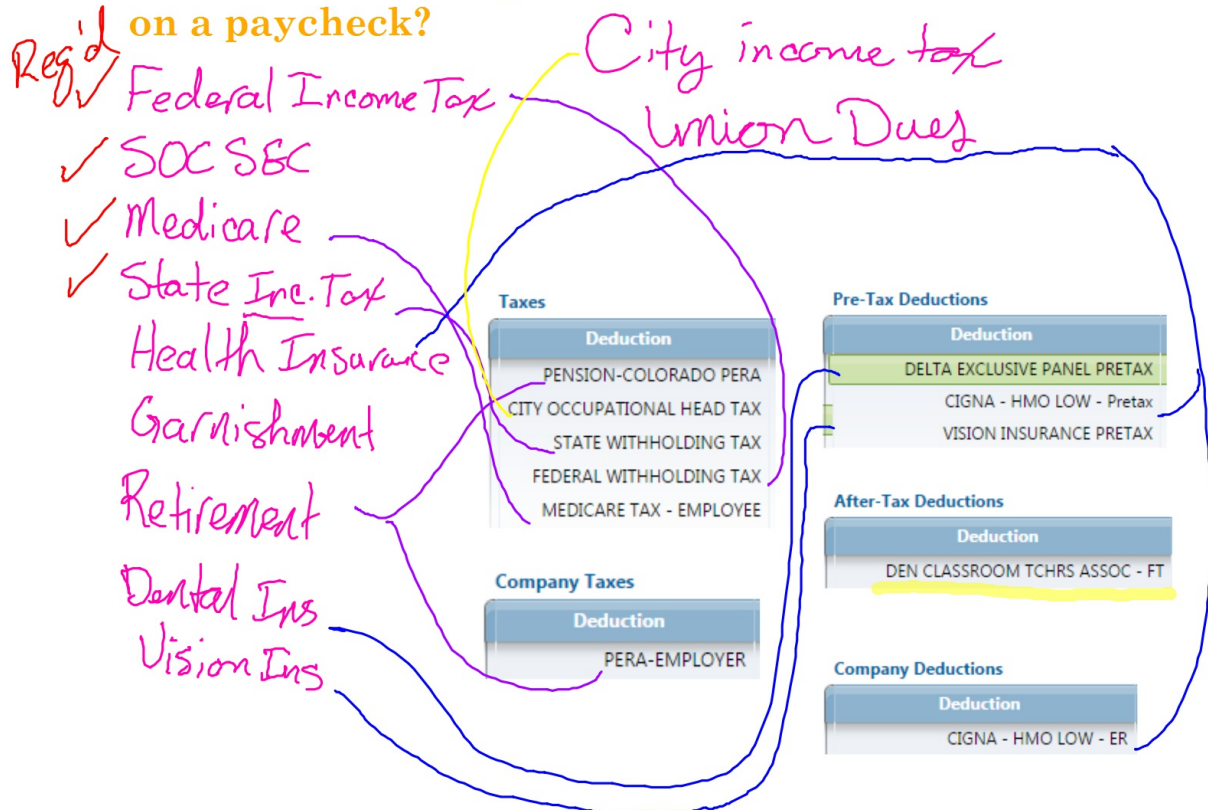
9/08/16

IWBAT

- understand which deductions are required on a paycheck
- calculate how each deduction is made
- work through examples where all deductions are taken into account.

Cost of Living: Required Paycheck Deductions

What kinds of things are found as deductions on a paycheck?



Cost of Living: Required Paycheck Deductions

Gross income *your total income before deductions*

Net income *income after deductions*
"take home pay"

Required deductions:

- Federal Income Tax
- State Income Tax
- Social Security
- Medicare

IWBAT understand which deductions are required on a paycheck, calculate how each deduction is made, and work through examples where all deductions are taken into account.

Cost of Living: Required Paycheck Deductions

Federal Insurance Contributions Act (FICA)

FICA = Social Security + Medicare

Social Security: 6.2%

Medicare: 1.45%

FICA: 7.65%

Pay periods:

• Annually

• Quarterly

• Monthly

• Biweekly

• Weekly

• Semi-monthly

Daily

Per yr

1

4

12

26

52

24

IWBAT understand which deductions are required on a paycheck, calculate how each deduction is made, and work through examples where all deductions are taken into account.

Cost of Living: Required Paycheck Deductions

Johnny makes \$9 per hour for the first 40 hours he works each week. He is paid biweekly. How much is deducted from his paycheck for FICA?

$$\begin{array}{r} \$9/h \times 40 h/wk = 360 \$/wk \cdot 7.65\% \\ \hline \$27.54/wk \\ \times 2 \text{ wk/paycheck} \\ \hline \$55.08/\text{paycheck} \end{array}$$

IWBAT understand which deductions are required on a paycheck, calculate how each deduction is made, and work through examples where all deductions are taken into account.

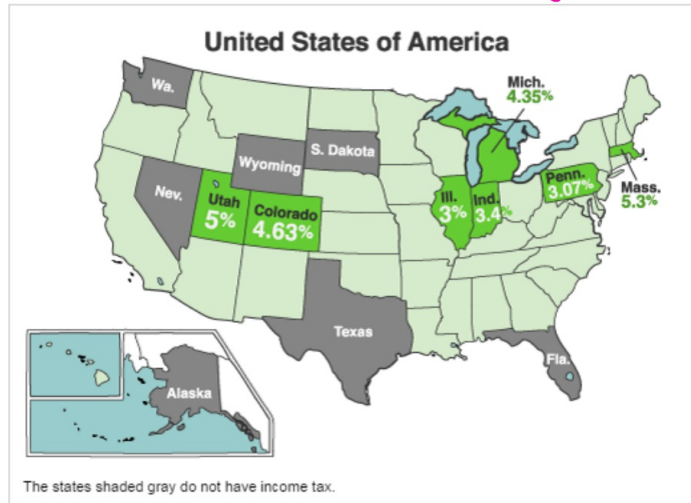
Cost of Living: Required Paycheck Deductions

State Income Tax

None

Flat tax

everyone pays the same % of their income in taxes regardless of income level



IWBAT understand which deductions are required on a paycheck, calculate how each deduction is made, and work through examples where all deductions are taken into account.

Cost of Living: Required Paycheck Deductions

Income Tax

Progressive tax

the wealthy pay a larger % of their income in taxes

Tax brackets

divisions in income with a specific tax rate

Single Taxpayers:

If Taxable Income Is:	The Tax Is:
Not over \$9,075	10% of the taxable income
Over \$9,075 but not over \$36,900	\$907.50 plus 15% of the excess over \$9,075
Over \$36,900 but not over \$89,350	\$5,081.25 plus 25% of the excess over \$36,900
Over \$89,350 but not over \$186,350	\$18,193.75 plus 28% of the excess over \$89,350
Over \$186,350 but not over \$405,100	\$45,353.75 plus 33% of the excess over \$186,350
Over \$405,100 but not over \$406,750	\$117,541.25 plus 35% of the excess over \$405,100
Over \$406,750	\$118,118.75 plus 39.6% of the excess over \$406,750

IWBAT understand which deductions are required on a paycheck, calculate how each deduction is made, and work through examples where all deductions are taken into account.

Cost of Living: Required Paycheck Deductions

3) Stewart $.1865 \times 69,880$
FIT

Practice: 2.6.2

IWBAT understand which deductions are required on a paycheck, calculate how each deduction is made, and work through examples where all deductions are taken into account.

Cost of Living: Optional Paycheck Deductions

9/14/16

Imagine you are applying for a job that pays \$46,200 per year.
You live in New York, which has the following income tax brackets:

Single and married filing separately — filing status ① and ③.					
over	but not over	The tax is:			
\$ 0	\$ 8,000				
8,000	11,000	\$320	plus	4.5%	of the excess over \$ 8,000
11,000	13,000	455	plus	5.25%	" " " " 11,000
13,000	20,000	560	plus	5.9%	" " " " 13,000
20,000	200,000	973	plus	6.85%	" " " " 20,000
200,000	500,000	13,303	plus	7.85%	" " " " 200,000
500,000	36,853	plus	8.97%	" " " " 500,000

Your federal income tax rate is 22%. What is your net income after all required deductions?

$$\begin{aligned}
 & \$46,200(.0765) = \$3,534.30 \\
 & \$46,200(.22) = \$10,164.00 \\
 & \$973 + 26,200(.0685) = \$2,767.70 + \\
 & \quad \underline{\$16,466.00} \\
 & \quad \quad \quad \underline{\$29,734}
 \end{aligned}$$

IWBAT

- explore optional deductions such as health insurance, life insurance, disability, and retirement
- practice computing optional deductions
- understand which optional deductions reduce your taxable income.

Cost of Living: Optional Paycheck Deductions

What kinds of deductions are optional?

Dental
Life
Vision
Health } Insurance
Charity
Garnishment
City Income Tax
Union dues
Retirement
Uniform

Taxes

Deduction
PENSION-COLORADO PERA
CITY OCCUPATIONAL HEAD TAX
STATE WITHHOLDING TAX
FEDERAL WITHHOLDING TAX
MEDICARE TAX - EMPLOYEE

Company Taxes

Deduction
PERA-EMPLOYER

Pre-Tax Deductions

Deduction
DELTA EXCLUSIVE PANEL PRETAX
CIGNA - HMO LOW - Pretax
VISION INSURANCE PRETAX

After-Tax Deductions

Deduction
DEN CLASSROOM TCHRS ASSOC - FT

Company Deductions

Deduction
CIGNA - HMO LOW - ER

Cost of Living: Optional Paycheck Deductions

Medical Insurance – to help you recover from illness or injury and to keep you healthy

Health
Dental
Vision

IWBAT explore optional deductions such as health insurance, life insurance, disability, and retirement, practice computing optional deductions, and understand which optional deductions reduce your taxable income.

Cost of Living: Optional Paycheck Deductions

Disability Insurance – injury prevents you from carrying out the duties of your job

SSD
Workman's Compensation

Life Insurance – pays your beneficiaries in the case of your demise

IWBAT explore optional deductions such as health insurance, life insurance, disability, and retirement, practice computing optional deductions, and understand which optional deductions reduce your taxable income.

Cost of Living: Optional Paycheck Deductions

Retirement - money to get you through your old age after you are no longer working

401(k)/403(B) Pension
for profit nonprofit IRA

Pre-tax vs. Post-tax

↳ items reduce your taxable income

IWBAT explore optional deductions such as health insurance, life insurance, disability, and retirement, practice computing optional deductions, and understand which optional deductions reduce your taxable income.

Cost of Living: Optional Paycheck Deductions

Calculating Deductions

$$\text{deduction per paycheck} = \frac{\text{annual cost}}{\text{\# of paychecks}} * \% \text{ employee covers}$$

Ana's employer covers 80% of the cost of a \$5700-per-year health insurance plan, and her share of the cost of the plan is her only optional deduction. How much is deducted from Ana's paycheck each month for health insurance?

$$\frac{\$5700}{12} (.20) = \$95.00 / \text{paycheck}$$

IWBAT explore optional deductions such as health insurance, life insurance, disability, and retirement, practice computing optional deductions, and understand which optional deductions reduce your taxable income.

Cost of Living: Optional Paycheck Deductions

Practice: 2.7.2

IWBAT explore optional deductions such as health insurance, life insurance, disability, and retirement, practice computing optional deductions, and understand which optional deductions reduce your taxable income.

Cost of Living: Income and Career

9/16/16

Calculate an employee's monthly insurance deduction.

Braden's employer covers 70% of the cost of a \$5100-per-year health insurance plan, and Braden's share of the cost of the plan is his only optional deduction. How much is deducted from Braden's paycheck each month for health insurance?

$$\begin{aligned} & 5,100 \cdot 0.70\% \\ & \$127.50 \text{ per month} \end{aligned}$$
$$\begin{array}{r} 5100 \\ - 3570 \\ \hline \$1530 \end{array} \div 12$$

IWBAT

- explore various sources of income
- consider the relationship between income and career preparation
- explore correlations between income and a worker's skills, education, type of work, and the health of the economy.

Cost of Living: Income and Career

Explore various sources of income.

Employment
getting paid for work

Pros:

Dependable income — you have a paycheck every week, every two weeks, or every month. The type of employment you can obtain is dependent on your education and experience — things you can control. You work regular hours — usually 35 to 40 each week.

Cons:

You are usually not in charge. Typically you do not get to make your own hours or choose what projects or tasks you must do. Your wages, hours, and level of responsibility are ultimately up to someone else.

Self-employment
Freelance

Business owner

	Self-employed	Business owner
Differences	You are providing something that you are required to produce.	You own or run an entity that produces something.
	If you take time off, then you will not generate any income.	You can take time off and the business will still operate and generate revenue.
Similarities	You are your own boss. You must make all decisions. There are no taxes deducted from your gross income automatically. You must do this on your own.	

Investment *to put in time, effort, or money in hopes of a larger return*

Cost of Living: Income and Career

Education

Degrees

Associates *2 yrs*
AA AS

Bachelors *4-5 yrs*
BA BS

Masters *Bach + 2 yrs*
MA MS MBA

Doctoral *Masters + 2-3 yrs*
PhD Bach + 4-5 yrs

Professional

MD, DO Bach + 4 yrs + 3 yrs Intern

JD Bach + 3 yr

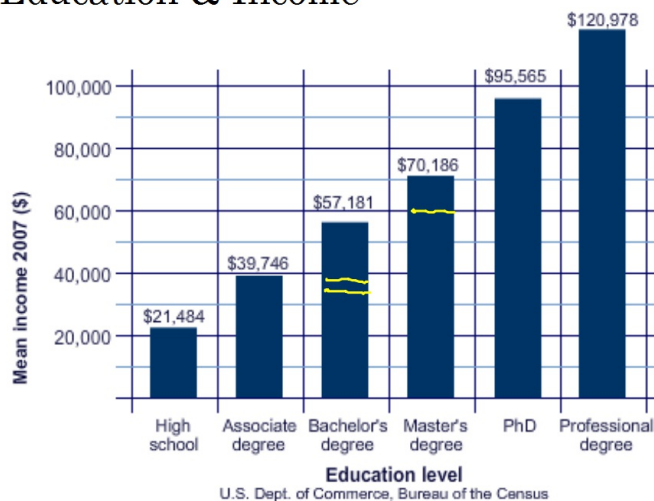
Certificate *months upto*
two years

CNA Dental Asst
Cosmetologist

IWBAT consider the relationship between income and career preparation, explore correlations between income and a worker's skills, education, type of work, and the health of the economy.

Cost of Living: Income and Career

Education & Income



IWBAT consider the relationship between income and career preparation, explore correlations between income and a worker's skills, education, type of work, and the health of the economy.

Cost of Living: Income and Career

Unemployment

$$\text{Unemployment} = \frac{\text{\# of workers willing and able to work but who are jobless}}{\text{total workers}}$$

To write this ratio as a percentage, you multiply its decimal form by 100.

$$\text{Unemployment rate (\%)} = \frac{\text{\# of workers willing and able to work but who are jobless}}{\text{total workers}} \cdot 100$$

Working with Unemployment Rates

This is a table of unemployment rates. For instance, by looking at the table, you can tell that in February of 2002, 5.7% of the population was unemployed.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2000	4.0	4.1	4.0	3.8	4.0	4.0	4.0	4.1	3.9	3.9	3.9	3.9
2001	4.2	4.2	4.3	4.4	4.3	4.5	4.6	4.9	5.0	5.3	5.5	5.7
2002	5.7	5.7	5.7	5.9	5.8	5.9	5.8	5.7	5.7	5.7	5.9	6.0
2003	5.8	5.9	5.9	6.0	6.1	6.1	6.3	6.1	6.1	6.0	5.8	5.7
2004	5.7	5.6	5.8	5.6	5.6	5.6	5.6	5.4	5.4	5.5	5.4	5.4
2005	5.3	5.4	5.2	5.2	5.1	5.1	5.0	4.9	5.0	5.0	5.0	4.9
2006	4.7	4.8	4.7	4.7	4.6	4.6	4.6	4.7	4.5	4.4	4.5	4.4
2007	4.6	4.5	4.4	4.5	4.4	4.6	4.4	4.6	4.7	4.7	4.7	5.0
2008	5.0	4.8	5.1	5.0	5.4	5.5	5.4	6.1	6.2	6.6	6.9	7.4
2009	7.7	8.2	8.6	8.9	9.4	9.5	9.4	9.7	9.8	10.1	10.0	10.0
2010	9.7											

Data taken from Bureau of Labor Statistics

1. If there were 7.7 million people unemployed in December of 2007, how many millions of people were available to work?

$$\frac{7.7 \text{ mil}}{5} = \frac{x}{100}$$

$$x = 154 \text{ mil}$$

IWBAT consider the relationship between income and career preparation, explore correlations between income and a worker's skills, education, type of work, and the health of the economy.

Cost of Living: Income and Career

Okun's Law $\% \text{ change in GDP} = 3\% - 2 * (\% \text{ change in unemployment rate})$

Types of unemployment

Structural *industrial reorganization, skills no longer needed*

Frictional *you are between jobs, changing from one job to another*

Cyclical *due to economic cycles (falling)*

Unemployment resistant careers

Teachers, MD, RN, Emergency Services

IWBAT consider the relationship between income and career preparation, explore correlations between income and a worker's skills, education, type of work, and the health of the economy.

Cost of Living: Income and Career

Practice: 2.8.2

IWBAT consider the relationship between income and career preparation, explore correlations between income and a worker's skills, education, type of work, and the health of the economy.

Cost of Living: Wages and Me

9/20/16

What possible careers are in your future?

RN

Realator

Midwife

pediatric oncologist

cosmetologist

athletic trainer

ultrasound tech.

massage therapist

attorney

IWBAT

- Explain that supply and demand are the primary factors in determining wages.
- Identify several specific factors that affect wage rates.
- Explore wage rates in their potential careers.

Cost of Living: Wages and Me

Using the interview form, discuss plans for researching a possible career with two other students. Record their responses on your form.

IWBAT explain that supply and demand are the primary factors in determining wages, identify several specific factors that affect wage rates, and explore wage rates in their potential careers.

Cost of Living: Wages and Me

Procedure

1. Retrieve a computer.
2. Read page one of assignment.
3. Proceed to the URL at the top of page two.
(http://www.bls.gov/oes/current/oes_nat.htm)
4. Follow the directions on page two of the assignment.
5. Record your answers to section 4 questions #1-10.
6. Write a short summary below "Conclusion" explaining
 - what you need to do over the next five years for your chosen career *OR*
 - why you now are looking into a different career other than the one chosen for this exploration.

IWBAT explain that supply and demand are the primary factors in determining wages, identify several specific factors that affect wage rates, and explore wage rates in their potential careers.

Cost of Living: Wages and Me

Using the interview form, reinterview one student after they have completed their research and have written their conclusion. Record their responses on your form.

Turn in both forms.

Work on practice problems 2.8.2

IWBAT explain that supply and demand are the primary factors in determining wages, identify several specific factors that affect wage rates, and explore wage rates in their potential careers.

In the country of Apexistan, 6.9% of the population was unemployed in September of 2014. If there were 186,000,000 people willing and able to work in Apexistan during that month, how many people were unemployed?

$$100 \times \frac{\text{workers willing \& able}}{\text{total workers}} = \text{unemployment \%}$$

$$100 \times \frac{186,000,000}{X} = 6.9\%$$

$$X = \frac{100 \cdot 186,000,000}{6.9} = \underline{2,695,652,000}$$

IWBAT

- analyze how economic conditions affect income
- explore various types of monthly expenditures.

Cost of Living: Cost of Living and Budget

Compare income to the cost of living in various geographical areas.

CPI	New York	Philadelphia	Los Angeles	Cleveland	Atlanta
Overall	165	92	156	78	112
Food	142	106	113	106	100
Housing	203	56	235	27	134
Utilities	165	130	115	126	93
Transportation	120	117	108	106	104
Health	182	102	120	113	104
Miscellaneous	136	112	107	100	99

CPI compares the cost of living in each area to the average for the nation (100).

Denver

<http://www.bls.gov/cpi/>

IWBAT analyze how economic conditions affect income and explore various types of monthly expenditures.

Cost of Living: Cost of Living and Budget

Standard of living *How well you are living on your income*

for a given income $CPI \downarrow$ *Standard of living* \uparrow

Budget *an amount of money you set for yourself to use*

IWBAT analyze how economic conditions affect income and explore various types of monthly expenditures.

Cost of Living: Cost of Living and Budget

Budget items

\$36,000 salary

Housing

25% of monthly
income (1 week's pay)

\$750

Utilities

elec, nat. gas, water, fuel oil
minimize costs

Groceries

food
coupons, specials, sales, loyalty cards,
only buy what you need, check unit prices,
shop around, buy in bulk

Other expenses

household supplies, clothing, diapers + baby supplies,
makeup, personal hygiene, supplements, furniture, toys,
school supplies, electronics

IWBAT analyze how economic conditions affect income
and explore various types of monthly expenditures.

Cost of Living: Cost of Living and Budget

Practice: 2.9.2

IWBAT analyze how economic conditions affect income
and explore various types of monthly expenditures.

2.10 Cost of Living and Budget Review
Create formulas in spreadsheet

9/21/16

2.10 Cost of Living and Budget Review
Create a Chart/Graph in spreadsheet

9/21/16

2.10 Cost of Living and Budget Review

IWBAT

- demonstrate my proficiency on practice problems before my unit test.

2.10 Cost of Living and Budget Review

Key vocabulary

2.1 Hourly wage, salary

2.2 Total compensation

2.3 Piece rate

2.4 Slope, intercept, piece-wise linear

2.5 Percentage, commission, graduated commission, total commission

2.6 Deductions, FICA, gross income, net income, flat tax, progressive tax, tax brackets

2.7 Pre-tax vs. post-tax

2.8 Unemployment rate, structural unemployment, frictional unemployment, cyclical unemployment

2.9 Cost of living, standard of living, budget

As a class, complete a definition of each key term (26 total).

IWBAT demonstrate my proficiency on practice problems before my unit test.

2.10 Cost of Living and Budget Review

Key skills

2.1 Converting from salary to hourly wage and from hourly wage to salary

2.2 Calculate total compensation

2.3 Convert piece rate to hourly wage

2.4 Express hourly wage and starting bonus as linear equation, express overtime as a set of piece-wise linear equations

2.5 Calculate total commission

2.6 Calculate required deductions

2.7 Calculate per paycheck deductions for optional deductions

2.8 Calculate number of unemployed and number of available workers via the unemployment rate equation

As a class, complete an explanation of each key skill (11 total).

IWBAT demonstrate my proficiency on practice problems before my unit test.

2.10 Cost of Living and Budget Unit Test

Paper test 2.10.5 #1-5

IWBAT demonstrate proficiency on my unit test.